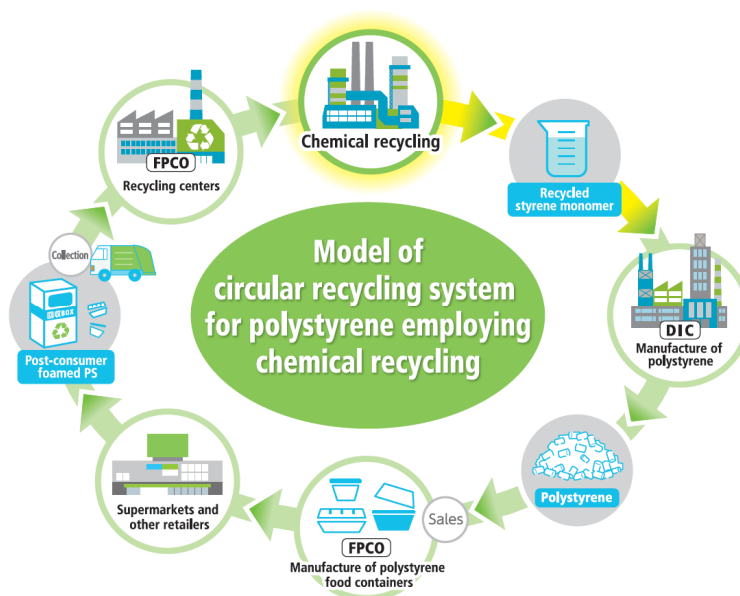


November 16, 2020

## FP Corporation

### DIC and FPCO Explore Collaboration in the Practical Implementation of a Closed-Loop Recycling System for Polystyrene that Employs Chemical Recycling

Tokyo, Japan—FP Corporation announced that it has begun formally exploring collaboration with Tokyo-based DIC Corporation (DIC) in the practical implementation of a closed-loop recycling system for polystyrene, which is used in plastic containers for food products, among others.



Model of closed-loop recycling system for polystyrene employing chemical recycling

With the aim of achieving the practical implementation of advanced plastic resource recycling, DIC is participating in a project to develop materials recycling processes for waste plastics that involves collaboration among industry, government and academia, as well as promoting its own research in the area of materials recycling. The Company is also conducting basic research regarding the influence of polystyrene, films, inks, adhesives and other materials used in food packaging on the recyclability of plastics in an effort to develop materials that exert less of an impact on the environment.

FPCO actively promotes what it calls “FPCO-method circular recycling,” which involves the collection and transformation of post-consumer foamed polystyrene food containers into new food containers using materials recycling. Currently, the company uses materials recycling to pulverize and melt used white foamed polystyrene food containers into polystyrene pellets. While white polystyrene containers are recycled into environment-friendly food containers (“Eco Trays”), the colored and/or patterned foamed polystyrene containers are recycled into raw materials for clothes hangers and other household items. (For more information on FPCO-method circular recycling, please see

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[https://www.fpc.jp/en/en\\_esg/en\\_environmenteffort/en\\_fpc\\_recycle.html](https://www.fpc.jp/en/en_esg/en_environmenteffort/en_fpc_recycle.html).)



FPCO-method circular recycling

The properties of polystyrene mean that it can be easily converted back into its precursor, styrene monomer, using controlled thermal degradation, which makes it particularly suitable for the planned new recycling system. Because polystyrene made with chemically recycled styrene monomer delivers the same performance and safety levels as that made with petroleum-derived virgin raw material, there are no limits to potential applications.

With a view to establishing a collaborative relationship that includes the creation of a chemical recycling joint venture, DIC and FPCO also plan to introduce third-party technologies for converting polystyrene back into styrene monomer to facilitate the recycling of colored and/or patterned foamed polystyrene containers, which to date could not be transformed into new food containers, with the objective of achieving a closed-loop recycling system for all types of polystyrene products. Consideration is currently being given to the construction of a demonstration testing facility at DIC's Yokkaichi Plant.

The new closed-loop recycling system, which employs chemical recycling, will make use of FPCO-method circular recycling. In addition, the application of this method will be expanded to allow the collection of used food containers via a network of 9,600 collection centers. Styrene monomer recycled by the DIC–FPCO joint venture from the colored and/or patterned containers will be transformed into polystyrene material by DIC, which will be used by FPCO to manufacture new food containers.

DIC and FPCO look forward to realizing this new system by leveraging diverse recycling technologies, as well as to contribute to the effective utilization of post-consumer plastics and the reduction of CO<sub>2</sub> emissions over the life cycle of foamed polystyrene food containers.

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## About DIC Corporation

DIC Corporation is one of the world's leading fine chemicals companies, with top shares of the global printing inks, organic pigments and polyphenylene sulfide (PPS) compounds markets. Established in 1908 as a manufacturer of printing inks, DIC has capitalized on its capabilities in organic pigments and synthetic resins to

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build a broad portfolio of products for diverse industries, including automobiles, electronics, food and housing. DIC is also the core of the DIC Group, a multinational organization with operations in more than 60 countries and territories worldwide.

Company name: DIC Corporation  
Representative: Kaoru Ino, President and CEO  
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Date of establishment: February 1908  
Website: <http://www.dic-global.com/en/>

## About FP Corporation

FP Corporation (FPCO) is Japan's leading manufacturer of food containers used for items sold at supermarkets, convenience stores and other retailers. Since its establishment, the company has dedicated itself to developing and providing products that respond to the needs of its customers. FPCO also endeavors to contribute to the realization of a sustainable society by promoting its proprietary FPCO-method "tray-to-tray" and "bottle-to-tray" recycling, which contributes to the reduction of waste and CO<sub>2</sub> emissions, as well as by developing resource-efficient containers with a reduced environmental impact.

Company name: FP Corporation  
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Website: <http://www.fpc.jp/en.html>